



Penn State Cooperative Extension Capitol Region Dairy Team

**WILL A ROBOT
BE MILKING
YOUR COWS?
Vinton Smith
Dairy Agent
Adams, Cumberland,
And York Counties**

Robotic milking technology is used in Pennsylvania!

Three dairy farms are using at least one robotic milker on their farm. They are on the front edge of innovation as they implement this technology in milking cows. However, there are dozens of other dairy producers throughout Pennsylvania watching them waiting to decide if they too will invest in this technology.

Economics, milk quality, and regulations are three of the biggest concerns that Pennsylvania dairy businesses have at this time regarding robotic milking technology. Many are looking at the capital investment costs and thinking that this is just too expensive. Some are saying, "We will not sacrifice milk quality in order to use robots." Others are concerned about how the Pennsylvania Department of Agriculture will regulate this technology that is only being approved on a case-by-case basis at this time. I will address all three of these issues in this column to help you better understand this technology.

• Economics: This is one of the biggest questions, "Can I afford to buy a robotic milker to milk my cows?" The answer to the question will be unique to each and every one of you. You will need to take into consideration your current investment in facilities, your need to invest in new facilities, your current and expected future labor costs, your level of production, and other "noneconomic" factors. These are all very important in determining if you can afford to invest in this technology.

Evaluating your current facilities will lead to much of the input into the your decision making process. Do you have outdated facilities that will need to be replaced or are in need of major repairs? If your current facilities are "well-used," have paid for themselves, and you are considering replacing them, then it makes economic sense to evaluate all alternatives. On the other hand, if you built a new milking parlor just a few years ago, it makes more sense to continue using that parlor until it has at least paid for itself. Challenges related to finding and maintaining a quality workforce are often key issues that encourage dairy producers to consider investing in robotic milking technology.

Clearly, a dairy producer using a robotic milker will be able to re-

duce the number of employees he or she hires. In addition, investing in robotic milking technology can enable a dairy producer to expand his or her herd without adding new employees. Ultimately, this will increase the cows per worker on the farm leading to improved labor efficiency. However, you must closely evaluate your savings in labor costs and compare it to your projected increase in capital cost with a robotic milker.

Your level of milk production and your efficiency of producing milk is a key fact that makes a major difference in the economic viability of any investment in new technology, including robotic milkers. Given similar input costs, the farms with higher levels of milk production will be more profitable. The cost of a new parlor or a robotic milker can be spread out over more hundred-weights of milk, making the investment more economical. Regardless of your future investment decisions, be sure to be realistic about your future production levels.

Noneconomic factors such as "quality of life" have been a big part of the decision-making process to Canadian and European dairy producers who have invested in robotic milking technology. The technology has given them more flexibility in their work routine. However, it has not reduced their need to work in the barn and around the cows. A robot will only milk the cows; it can't do everything.

• Milk quality: Producing high quality milk will lead to a more profitable dairy business. Quality premiums can be as much as \$.50 per CWT. That can add up to a substantial amount of money over an entire year. Regardless of the type of milking technology being used, focusing on detail and paying attention to the little things will often lead to improved milk quality.

Generally speaking, dairy farms that have switched to using robotic milking technology have not had problems producing milk that is safe and within the legal limits of quality. However, many farms have lost a little in terms of their level of milk quality. If you are thinking about investing in robotic milking technology, don't expect to improve the quality of milk that you are producing now just by switching to robots. Perhaps, over time and with a focus on detail, you will see an improvement.

• Regulation: Officials in the Bureau of Food Safety, part of the Department of Agriculture (PDA), have been very proactive and supportive of robotic milking technology. They are working

Pa. Junior Holstein Meeting Feb. 8

ALTOONA (Blair Co.) — The Pennsylvania Junior Holstein Association annual meeting will be Friday, Feb. 8, at 7:15 p.m. at the Ramada Inn, Altoona.

The agenda will include a review of the 2001 junior activities, reports on upcoming events, and fundraisers for 2002.

The junior membership will also be reviewing their bylaws and voting on a few changes as presented by the Junior Executive Committee.

The Ramada Inn is located just off I-99 (old Rt. 220) at the Plank Road exit, Altoona.

All Pennsylvania Junior Holstein Association members are invited to attend the annual meeting and convention Feb. 8-10 at the Ramada Inn, Altoona.

closely with the current robotic milker installations to monitor milk quality and to learn as much as they can about this technology. I believe they realize that robotic milking is here to stay and they don't want to limit progress of the Pennsylvania dairy industry.

PDA is approving robotic milking installations on a case-by-case basis. They are closely evaluating every aspect of the installation to assure that the equipment at least meets the standard requirements the state has imposed on all milking systems. Officials in PDA have worked closely and proactively with the dairy producers using robotic milkers before the milkers were even installed to limit problems and concerns in the future.

• Visit a farm with a robot milker: The Capitol Region Dairy Team has organized a program at H. E. Heindel & Sons farm in Brogue (York County) called "Robotic Milking in Pennsylvania." It will be conducted Jan. 31, 2002 from 9:30 a.m. to 3 p.m. This farm has had four robotic milkers installed since last summer. The farm's dairy manager, officials from PDA, capitol region extension agents, faculty from Penn State, and representatives from Lely will be on hand to present information and to discuss questions you may have. Cost for the program is only \$15 and includes lunch. To register, please call (717) 840-7408 or e-mail vsmith@psu.edu.

2002 PENNSYLVANIA HOLSTEIN ASSOCIATION CALENDAR OF EVENTS

JANUARY 18	11 00A M NORTHWEST REGIONAL SHOW & SALE MTG HOWARD JOHNSON'S INN MERCER, PA
JANUARY 18	7 00P M FRANKLIN COUNTY ANNUAL MEETING MRS GIBBLE'S RESTAURANT, CHAMBERSBURG PA
JANUARY 19	11 30 A M BRADFORD COUNTY ANNUAL MEETING BEEMAN'S RESTAURANT, ATHENS, PA
JANUARY 19	11 45 A M BUTLER COUNTY ANNUAL MEETING GARDEN GATE RESTAURANT, PROSPECT, PA
JANUARY 19	7 00 P M CLARION/VENANGO COUNTY ANNUAL MEETING WOLF'S DEN RESTAURANT, KNOX, PA
JANUARY 19	7 00 P M HUNTINGDON COUNTY ANNUAL MEETING SHAVER'S CREEK COMMUNITY BUILDING, SHAVERS CREEK, PA
JANUARY 31	11 00 A M SOUTH-CENTRAL SHOW & SALE MEETING OLD COUNTRY BUFFET, HARRISBURG, PA
FEBRUARY 2	7 30 P M BEAVER/LAWRENCE COUNTY ANNUAL MEETING HOLIDAY INN, BEAVER FALLS, PA
FEBRUARY 8-10	PENNSYLVANIA JUNIOR HOLSTEIN CONVENTION RAMADA INN, ALTOONA, PA
FEBRUARY 28-MARCH 2	PENNSYLVANIA HOLSTEIN CONVENTION RAMADA INN & BLAIR COUNTY CONVENTION CENTER, ALTOONA, PA
MARCH 1	PA HOLSTEIN ASSOCIATION 89 TH ANNUAL MEETING BLAIR COUNTY CONVENTION CENTER, ALTOONA, PA
MARCH 1	7 00 P M PA HOLSTEIN CONVENTION SALE BLAIR COUNTY CONVENTION CENTER, ALTOONA, PA
MARCH 7	7 00 P M PERRY COUNTY ANNUAL MEETING MESSIAH LUTHERN CHURCH
MARCH 15	7 00 P M SNYDER COUNTY ANNUAL MEETING MIDDLEBURG FIREHALL, MIDDLEBURG PA
MARCH 15	7 00 P M SOMERSET COUNTY ANNUAL MEETING BERLIN COMMUNITY BUILDING, BERLIN PA
MARCH 29	9 30A M PA HOLSTEIN SPRING SHOW FARM SHOW BUILDING HARRISBURG PA
APRIL 5	7 00 P M SUSQUEHANNA COUNTY HOLSTEIN CLUB SALE HAROLD HARTT FARM SUSQUEHANNA PA
APRIL 12	7 00 P M WESTERN PA SPRING SPECTACULAR SALE MERCER COUNTY 4-H PARK MERCER PA
APRIL 19	7 00 P M SOUTHWEST SENSATION SALE FAYETTE COUNTY FAIRGROUNDS UNIONTOWN PA
JUNE 25-28	NATIONAL HOLSTEIN CONVENTION TRUMPTAJ MAHAL ATLANTIC CITY NJ
JULY 27	10 00A M SOUTHWEST CHAMPIONSHIP SHOW FAYETTE COUNTY FAIRGROUNDS UNIONTOWN PA
AUGUST 17	6 00 P M CENTRAL CHAMPIONSHIP SHOW HUNTINGDON COUNTY FAIRGROUNDS HUNTINGDON PA
AUGUST 20	10 00A M NORTHEAST CHAMPIONSHIP SHOW ALPION PARK, TROY PA
SEPTEMBER 24	9 00A M PA HOLSTEIN FALL CHAMPIONSHIP SHOW FARM SHOW BUILDING HARRISBURG PA
SEPTEMBER 25	7 00P M EASTERN ELITE HOLSTEIN SALE FARM SHOW BUILDING HARRISBURG PA
SEPTEMBER 26	8 00A M EASTERN NATIONAL HOLSTEIN SHOW FARM SHOW BUILDING HARRISBURG PA
NOVEMBER 16	11 00A M NITTANY LION FALL CLASSIC SALE AG ARENA, STATE COLLEGE, PA

Robotic Milking Meeting To Take Place At York County Farm

BROGUE (York Co.) — Pennsylvania now has three farms using robotic milkers. Many other people are watching these three dairy farms as they also consider investing in this new technology. Seeing a robotic milker in operation and having a discussion with key people that were involved in the decision making process can be very helpful to gain a better understanding of this technology.

The Capitol Region Dairy Team has coordinated an informational farm meeting about robotic milking. It will take place at the H. E. Heindel & Sons Farm in York County, on Jan. 31 from 9:30 a.m. to 3 p.m. Heindel's have been using four Lely Astronaut robotic milkers since last summer. You will see their robotic milkers and have an opportunity to learn first-hand about this new technology.

Dr. Jeff Hyde, professor of agricultural economic at Penn State, will present information about the economics of robotic

milking. He will illustrate a new economic model that dairymen can use to determine whether this technology would be a sound economic decision for their individual farms.

Jim Dell, chief of the Division of Milk Sanitation with the Pennsylvania Department of Agriculture will discuss regulatory issues related to installing and using robotic milkers and concerns about maintaining milk quality. He will share PDA's perspective on this advanced technology for dairy producers in Pennsylvania.

Dan McFarland, regional agricultural engineering extension agent will present information about facility design. He will focus on issues that impact or change normal dairy herd management practices when a dairy producer begins to use a robotic milker.

Alfred Kamps with Lely USA, Inc. and Darlene Wiggins, dairy manager at the Heindel Farm will discuss the installation and operation of the four units at the Heindel Farm. Kamps will also

present ideas about barn lay out and design in both new and existing facilities.

The program will begin in the morning at the Brown Cow County Market (the Heindel Family retail market) located on Route 74 in Brogue. Information will be presented and a panel discussion will be held in the morning. Following lunch, the program will move to the families new dairy facilities with the robotic milkers. Speakers will then lead more discussion about the installation, operation, and management of robotic milkers.

You will have the opportunity to observe robotic milkers in operation and see first hand the challenges and successes that the Heindel Farm is having with this technology. Cost of the program is \$15 and includes lunch. For more information about this program or to register, call Customer Service at Penn State Cooperative Extension in York County at (717) 840-7408 or email Vinton Smith at vsmith@psu.edu by Jan. 25.

Foraging Around, the official publication of the Pennsylvania Forage and Grassland Council, scheduled February 9 in Lancaster Farming, is scheduled to include a feature on rotational grazing for poultry in addition to work by other leading graziers. A preview and schedule of the upcoming Pennsylvania Forage and Grazing Conference is also scheduled, in addition to news and views of the Council.

